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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/720,938	05/02/2001	Manfred Rothley	10191/1694	8316

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KENYON & KENYON
ONE BROADWAY
NEW YORK, NY 10004

EXAMINER

HANNAHER, CONSTANTINE

ART UNIT

PAPER NUMBER

2878

DATE MAILED: 07/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/720,938

Applicant(s)

ROTHLEY ET AL.

Examiner

Constantine Hannaher

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19 and 21-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 24 and 36 is/are allowed.
- 6) ☒ Claim(s) 19,22,29-31 and 33 is/are rejected.
- 7) ☒ Claim(s) 21,23,25-28,32,34 and 35 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 9.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 19, 22, 29, 30, 31, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cox (US005401968A).

With respect to independent claim 19, Cox discloses an apparatus **10** (Fig. **3**) for sensing electromagnetic radiation comprising a detector structure **22** to sense electromagnetic radiation and formed on a semiconductor substrate **44** (column 3, line 6) and a micromechanical (column 2, lines 57-60 and column 3, lines 7-20) optical imaging system **30** including a lens (column 2, lines 52-55) configured to form an image of a subject **18** onto a plane of the detector structure **22**. The lens of Cox has a convexity on a side facing away from the detector structure, and is arranged relative to the detector structure so that a cavity is between the lens and the detector structure. Cox does not

disclose a protective window, but in view of the schematic illustration of the apparatus (Fig. 1), it would have been obvious to one of ordinary skill in the art at the time the invention was made that a protective window for the detector structure 22 would be within the side of the airplane (where scene 18 is a landform), for example, or in the housing allowing an operator to hold and manipulate the apparatus (where scene 18 is a house) and the like.

With respect to dependent claim 22, the detector structure 22 in the apparatus of Cox includes multiple separate detector elements 14 and the (optical) imaging system 30 includes multiple lenses, each lens of the multiple lenses being associated with a respective one of the detector elements 14.

With respect to dependent claim 29, the optical imaging system 30 in the apparatus of Cox is constructed on a semiconductor substrate (column 2, lines 60-62).

With respect to dependent claim 30, since the optical imaging system 30 in the apparatus of Cox may be made of silicon (column 2, line 61) and the substrate 44 of the detector structure 22 is made of silicon (column 3, line 6), the two are made of the same material.

With respect to dependent claim 31, at least one of the optical imaging system 30 and the substrate 44 of the detector structure 22 in the apparatus of Cox is made at least partially of silicon (column 2, line 61 and column 3, line 6).

With respect to dependent claim 33, the apparatus of Cox further comprises a membrane 16 supporting the detector elements 14.

Response to Submission(s)

4. The amendment filed May 5, 2003 has been entered.
5. Applicant's arguments filed May 5, 2003 have been fully considered but they are not persuasive.

The rebuttal of the application of the Cox reference is not persuasive. If it is the position of applicant's representative that one skilled in the art making use of the detector array **22** to view a scene **18** (as shown in Fig. **1** of Cox) would be unable to supply an element of the scope recited (which in its entirety is "a protective window for the detector structure" with no limitation as to the nature or location or any other aspect of the element) then this should be clearly stated so that further prosecution may weigh the value of the argument setting forth such a position. The court in *Para-Ordinance Mfg., Inc. v. SGS Importers Int'l Inc.*, 73 F.3d 1085, 1090, 37 USPQ2d 1237, 1240-41 (Fed. Cir. 1995) emphasized that the artisan's own common sense analysis of the specific prior art relied upon may be properly coupled with his or her own experience and general knowledge of the prior art. In the Motamedi *et al.* reference supplied with the reply of May 5, 2003, the optical scanner *test bed* (Fig. **31**) has a "protective window" (page 1296, right-hand column). Is applicant's representative prepared to argue that an artisan building *advanced military sensor systems* as described on page 1283 would not know to include a protective window for the sensor system, somewhere? It is a reasonable inference that the detector array of Cox is suitable for inclusion in military sensor systems such as found in helmets, missiles, airplanes, and the like because artisans must be presumed to know something about the art apart from what the reference discloses. Applicant may not impute less than ordinary skill in the art to those contemplating the specific teachings of the Cox reference.

6. For at least the reasons explained above, Applicant is not entitled to a favorable determination of patentability in view of the arguments submitted May 5, 2003.

Allowable Subject Matter

7. Claims 24 and 36 are allowed.

8. Claims 21, 23, 25-28, 32, 34, and 35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter: the amendments are effective to overcome the applied references Ray *et al.* and Gramann *et al.*

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Constantine Hannaher whose telephone number is (703) 308-4850. The examiner can normally be reached on Monday-Friday with flexible hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David P. Porta can be reached on (703) 308-4852. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

ch
June 26, 2003

A handwritten signature in black ink, appearing to read "Gustafson".